

REPLY

5. Subject Matter of Argument:

(1) The scope of the claims has been amended in the Amendment to be submitted together with the Argument. The main points of the Argument and the reasons therefor are as follows.

Claim 1 is amended by adding the structural feature of the solid state image pickup device that each of the components of the solid state image pickup device -the pixel units; the noise signal removal units; and the column amplification units- is configured as an N-type MOS circuit. The amendment is based on the paragraphs [0058], [0059] and [0071] in the description.

Claim 2 is amended by adding the structural feature that each of the impedance conversion unit and the output signal amplification unit is configured as an N-type MOS circuit. The amendment is based on the paragraphs [0058], [0059] and [0071] in the description, as is the case of the amendment to Claim 1.

Claims 8 and 23 are deleted as a result of the amendments made in Claims 1 and 2.

(2) In the Written Opinion issued by the International Searching Authority, Reference 1 (JP2002-152595A), Reference 2 (JP62-185471A) and Reference 3 (JP2001-251555A) are quoted.

In References 1 to 3, the components corresponding to the pixel units, the noise signal removal units and the column amplification units of the solid state image pickup device are disclosed. Reference 1 discloses a CMOS solid state image pickup device, Reference 2 discloses a MOS solid state image pickup device, and Reference 3 discloses MOS solid state image pickup device.

In contrast, according to the amended Claims 1 and 26 of the present invention, each of the pixel units, the noise signal removal units and the column amplification units is configured as an N-type MOS circuit, therefore, the manufacturing process is facilitated, and the degradation in pixel characteristics due to the heat treatment in the course of the formation of P-type MOS is prevented, so that the present invention can achieve an advantageous effect of obtaining satisfactory

pixel characteristics of the manufactured solid state image pickup device. Moreover, light electrons which are extremely lighter than holes move in the N-type MOS circuit, therefore, it is possible, even with the solid state image pickup device with high numbers of pixels, to achieve another advantageous effect in that still pictures and moving pictures can be obtained at high speed.

However, References 1 to 3 disclose neither the suggestion nor the motivation with regard to the limitation of the N-type MOS circuit. That is to say that, with the techniques disclosed in References 1 to 3, it is not possible to achieve such advantageous effect as can be produced by the present invention.

Also, according to the amended Claim 2 of the present invention, as is the case of the amended Claim 1, each of the impedance conversion unit and the output signal amplification unit is configured as an N-type MOS circuit; therefore, it is possible to achieve the advantageous effect that is not disclosed in References 1 to 3.

Thus, it is not easy, even with the teachings disclosed in References 1 to 3, for an ordinary person skilled in the art to arrive at the present invention. We therefore believe that a positive International Preliminary Examination Report will result.